LEDTRONICS, INC.®

23105 Kashiwa Court, Torrance, CA 90505
Phone: (800) 579-4875 or (310) 534-1505 Fax: (310) 534-1424
E-mail: webmaster@ledtronics.com
Website: http://www.ledtronics.com

LBG1000RG3B

Hi-Eff Red/Hi-Eff Green

Vertical 1.8x5mm LED Bargraphs, 10-LED TriColor

DWG BY: GP 06-19-14
R&D: BJ 06-20-14
MFG: LD 06-20-14
QA: RD 06-20-14
REVISION LTR: - ECR#: 061714-RTD01 06-19-14

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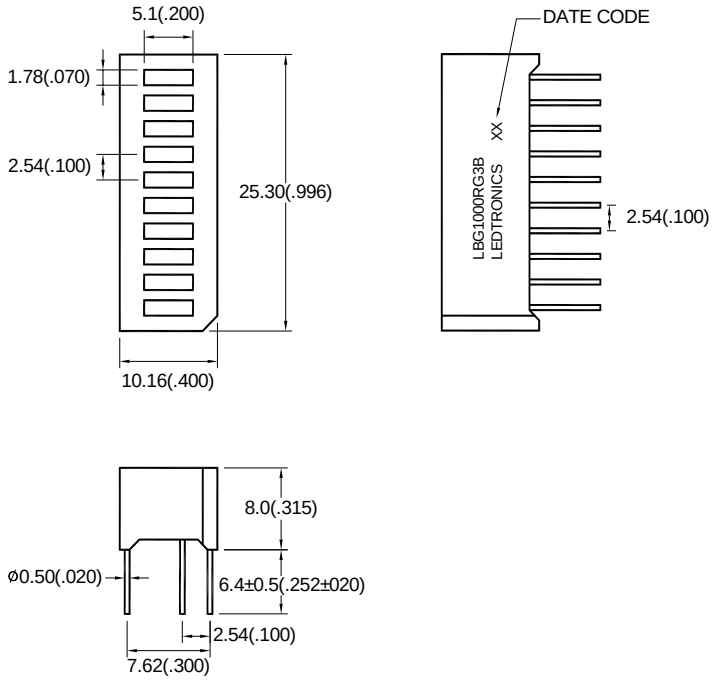
Features :

1. Emitting area : 5.1×1.78×10（mm）
2. Low power requirement.
3. Excellent characters appearance.
4. Solid state reliability.
5. Categorized for luminous intensity.
6. Universal pin out.

Description :

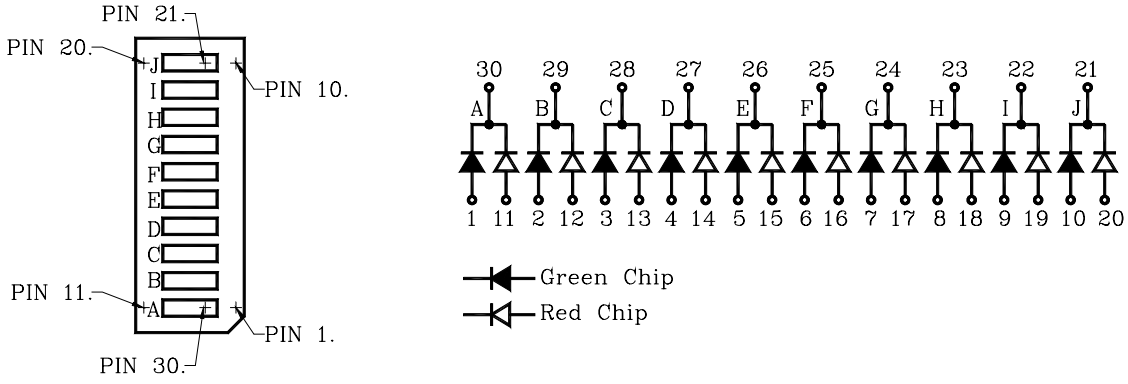
1. The LBG1000RG3B is 10 bar graph array display.
2. This product use hi-eff red chips and hi-eff green chips.
3. This product have a black face and white segments.
4. This product is RoHS compliant.

Package Dimensions :



Notes:
1. All dimensions are in millimeters(inches).
2. Tolerance is ±0.25mm(.01")unless otherwise specified.
3. Specifications are subject to change without notice.

Internal Circuit Diagram :



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● Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Hi-Eff Red	Hi-Eff Green	Unit
Power Dissipation Per Segment	Pd	80	80	mW
Forward Current Per Segment	I_F	30	30	mA
Peak Forward Current Per Segment	I_{FP} (Duty 1/10, 1KHZ)	150	150	mA
Reverse Voltage Per Segment	V_R	5		V
Operating Temperature	Topr	-40°C~85°C		-
Storage Temperature	Tstg	-40°C~85°C		-
Soldering Temperature (1/16" From Body)	Tsol	260°C For 5 Seconds		-

● Electrical And Optical Characteristics(Ta=25°C)

Hi-Eff Red

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage Per Segment	Vf	I_F=10mA	-	1.9	2.5	V
Luminous Intensity Per Segment	Iv	I_F=10mA	-	5.0	-	mcd
Reverse Current Per Segment	I_R	V_R=5V	-	-	100	μA
Peak Wave Length	λ p	I_F=20mA	-	640	-	nm
Dominant Wave Length	λ d	I_F=20mA	626	-	636	nm
Spectral Line Half-width	Δλ	I_F=20mA	-	40	-	nm

Hi-Eff Green

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage Per Segment	Vf	I_F=10mA	-	2.1	2.5	V
Luminous Intensity Per Segment	Iv	I_F=10mA	-	7.0	-	mcd
Reverse Current Per Segment	I_R	V_R=5V	-	-	100	μA
Peak Wave Length	λ p	I_F=20mA	-	568	-	nm
Dominant Wave Length	λ d	I_F=20mA	566	-	572	nm
Spectral Line Half-width	Δλ	I_F=20mA	-	30	-	nm

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Typical Electro-Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

Fig.1 Relative Radiant Intensity VS. Wavelength

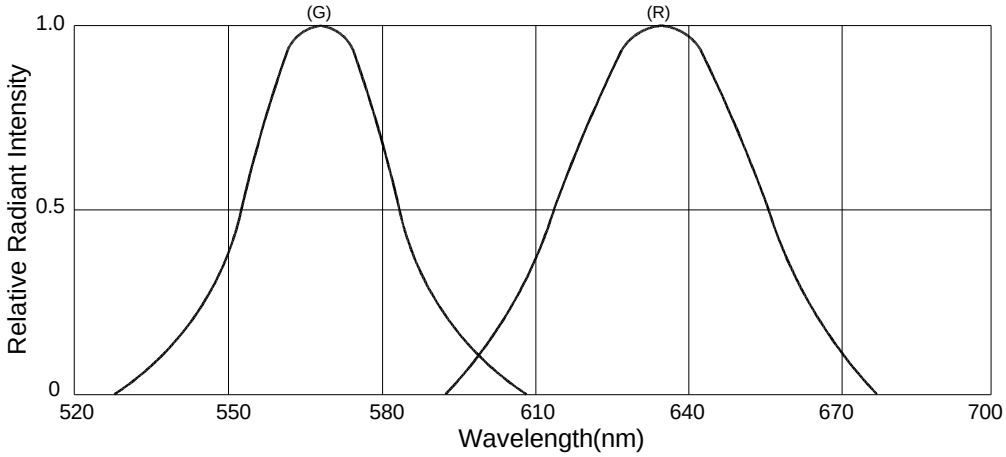


Fig.2 Forward Current VS. Forward Voltage

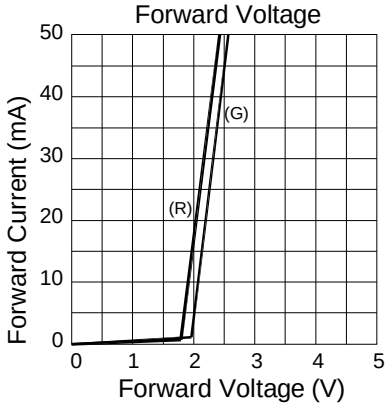


Fig.3 Relative Luminous Intensity VS. Ambient Temperature

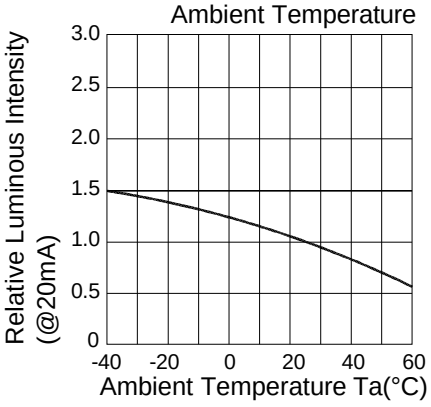


Fig.4 Relative Luminous Intensity VS. Forward Current

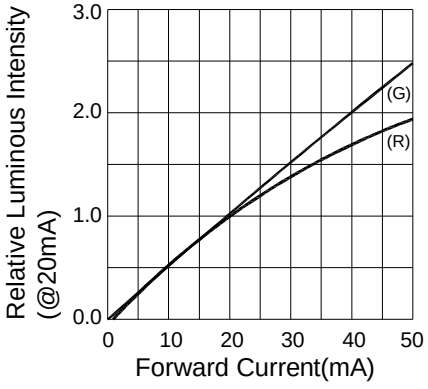
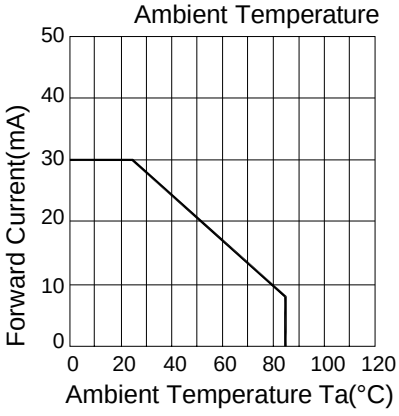


Fig.5 Forward Current Derating Curve VS. Ambient Temperature



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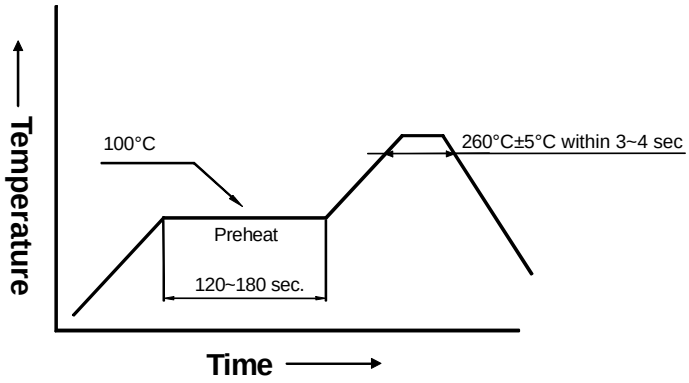
● **DIP soldering (Wave Soldering)**

Preheating : 100°C ,within 120~180 sec.
Operation heating : 260°C ± 5°C within 3~4 sec.
Gradual Cooling (Avoid quenching).



● **IRON soldering**

350°C with 4~5 sec.